Abstract

This invention comprises an inflatable structure that is constructed by combining polyhedron structural elements to form more complex geodesic structures. The structural elements are constructed out of straight inflatable tubes, in which the warp of the polyester reinforced fabric is aligned with the principal tube axis, giving it high resistance to bending. The complementary leg ends are connected at the vertices with connectors that comprise a slider and track formation, fixed along the axial angle at the end of each leg. Each leg end is shaped along the natural complimentary lines along the intersecting surfaces of the adjacent structural element. Once assembled, in combination with a fabric cover and groundsheet, the tent is stable and completely freestanding.